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Hiroshi Fukui

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EXAMINER

LOEWE, ROBERT S

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Attachment to Advisory Action

Applicant's arguments filed 2/11/09 have been fully considered but they are not found to be persuasive. Specifically, Applicants argue that the Comparative examples of the instant specification show that the silicone oils having only five silicon atoms are not capable of forming a homogeneous composition, whereas silicone oils having greater numbers of silicon atoms were shown to be successful. However, the number of silicon atoms according to instant claim 1 can be as low as seven. There is nothing shown by Applicants which demonstrates the criticality of a silicone oil having seven silicon atoms. The working examples in the instant specification employ silicone oils having 12, 25, 31, 52, 112, and 117 silicon atoms. Further, the working example which employs a silicone oil having 12 silicon atoms is used as a blend with another silicone oil having 52 silicon atoms. So there are no working examples which show criticality in the lower limit of Applicants claimed range of "5 to 100". In the absence of a showing of unexpected results throughout Applicants claimed range, the 103(a) rejection to Mine et al. (US Pat. 5,872,170) is maintained.

Applicants further argue that Mine et al. teaches a laundry list of various components including the optional adhesion promoters taught therein. However, **all** of the working examples of Mine et al. employ adhesion promoters in conjunction with an electrically conductive filler, which also serve as heat conductive fillers. So Mine et al. teaches that the addition of adhesion promoters is **preferred**.

Applicants further argue that the working examples of Mine et al. teach a siloxane adhesion promoter having only five silicon atoms, which does not meet the structural requirements of instant claim 1. However, the specification of Mine et al. does not limit the

siloxane adhesion promoters to just those having five silicon atoms. A reference may be relied upon for all that it teaches, including non-preferred embodiments.

Applicants further argue that Mine et al. teaches other adhesion promoters such as methyltrimethoxysilane which Applicants have also shown to be an ineffective silicone oil in the instant specification. However, Mine et al. fairly teaches/suggests that the adhesion promoter which may be employed can have the same structure as components (A1) and (A3) of the instant claims. The fact that Mine et al. also suggests additional silane adhesion promoters, such as methyltrimethoxysilane does not remove Mine et al. as being an obviousness-type reference.

The siloxane adhesion promoters taught at 17:40 [which corresponds to component (A1) of instant claim 1] and 17:50 [which corresponds to component (A3) of instant claim 1] fairly suggests to a person having ordinary skill in the art that siloxane adhesion promoters having the same structural limitations as independent claim 1 may be employed. Further, a person having ordinary skill in the art understands that adhesion promoters in general need to be of relatively small molecular weight and low viscosity in order to function for their intended purpose. So while Mine et al. teaches "m is a positive number", a person having ordinary skill in the art readily understands that m should not be a very large number, given the role of an adhesion promoter. So the overlap between the range "5 to 100" of instant claim 1 and the teachings of Mine et al. are believed to be large enough so as to render obvious the structures of instant claim 1, based solely on the teachings of Mine et al.

Further, compounds which are homologs (compounds differing regularly by the successive addition of the same chemical group, e.g., by -CH₂- groups) are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds

possess similar properties. *In re Wilder*, 563 F.2d 457, 195 USPQ 426 (CCPA 1977). In the instant case, the Examiner contends that a siloxane oligomer having five silicon atoms as employed by Mine et al. and a siloxane oligomer having 7 siloxane atoms as claimed would be expected to have similar properties. Again, Applicants have not shown criticality with respect to the lower limit of the claimed range "5 to 100". All working examples employ silicone oils with a substantially larger number of silicon atoms.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Loewe whose telephone number is (571) 270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/R. L./
Examiner, Art Unit 1796
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